THE CLAIMS

1. An awl apparatus for penetrating bone, comprising:

a shaft having a proximal end and a distal end, with a cutting edge formed on the distal end;

an outer sleeve having a wall, a proximal end, and a distal end, wherein the outer sleeve surrounds at least a portion of the shaft, and is movable with respect to the shaft; and

a biasing member configured to bias the shaft to an initial position within the outer sleeve;

wherein the shaft is movable in the axial direction with respect to the outer sleeve by a predetermined distance to limit the depth of penetration of the cutting tip into a bone;

and wherein the shaft can be rotated within the outer sleeve to aid in penetrating a bone; and

wherein the distal end of the outer sleeve is conically tapered for releasable attachment to a bone plate.

2. The awl apparatus of claim 1, wherein the elastic member is a coil spring.

3. The awl apparatus of claim 1, wherein the elastic member is a coil spring surrounding the shaft.

4. The awl apparatus of claim 1, wherein the distal end of the outer sleeve has external threads for releasable attachment to a bone plate.

5. The awl apparatus of claim 1, wherein the initial position of the shaft is such that the cutting edge of the shaft is surrounded by the outer sleeve.

6. The awl apparatus of claim 1, wherein there is at least one slot in the wall of the outer sleeve.

7. The awl apparatus of claim 1, further comprising a shoulder for limiting depth of penetration into the bone by the cutting edge.

8. The awl apparatus of claim 1, further comprising a handle attached to the end of the shaft.

9. An awl apparatus for penetrating bone, comprising:

a shaft having a proximal end and a distal end, with a cutting edge formed on the distal end;

an outer sleeve having a wall, a proximal end, and a distal end, wherein the outer sleeve surrounds at least a portion of the shaft, and is movable with respect to the shaft; and

a biasing member configured to bias the shaft to an initial position within the outer sleeve;

wherein the shaft is movable in the axial direction with respect to the outer sleeve by a predetermined distance to limit the depth of penetration of the cutting tip into a bone;

and wherein the shaft can be rotated within the outer sleeve to aid in penetrating a bone; and

wherein there is at least one slot in the wall of the outer sleeve.

10. The awl apparatus of claim 9, wherein the elastic member is a coil spring.

11. The awl apparatus of claim 9, wherein the elastic member is a coil spring surrounding the shaft.

12. The awl apparatus of claim 9, wherein the distal end of the outer sleeve has external threads for releasable attachment to a bone plate.

13. The awl apparatus of claim 9, wherein the initial position of the shaft is such that the cutting edge of the shaft is surrounded by the outer sleeve.

14. The awl apparatus of claim 9, wherein the distal end of the outer sleeve is conically tapered for releasable attachment to a bone plate.

15. The awl apparatus of claim 9, further comprising a shoulder for limiting depth of penetration into the bone by the cutting edge.

16. The awl apparatus of claim 9, further comprising a handle attached to the end of the shaft.

17. A procedure for installing a bone plate on a bone surface, comprising the steps of:

(a) contacting the bone plate to the bone surface;

(b) contacting an awl apparatus to a first fastener hole in a bone plate, the awl apparatus comprising a shaft having a cutting edge formed on a distal end, an outer sleeve within which the shaft can be rotated and is axially movable, and a biasing member configured to bias the shaft to an initial position within the outer sleeve;

(c) creating a hole in the bone by applying axial pressure to the distal end of the shaft and rotating the shaft;

(d) removing the awl apparatus from the bone plate while holding the bone plate in contact with the bone surface; and

(e) installing a bone anchor through the first fastener hole into the hole created in step (c).

18. The procedure of claim 17, further comprising the step of attaching the awl apparatus to a second fastener hole in the bone plate of step (a) and repeating steps (b) through (e) for the second fastener hole.

19. The procedure of claim 17, wherein step (b) is completed prior to step (a).

20. The procedure of claim 11, wherein the awl is releasably attached to the bone plate by threading onto the bone plate.